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In the Supreme Court of the United States

OCTOBER TERM, 1985

DOW CHEMICAL COMPANY, PETITIONER

v.

UNITED STATES OF AMERICA

ON WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE SIXTH CIRCUIT

BRIEF FOR THE UNITED STATES

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QUESTIONS PRESENTED

1. Whether the Environmental Protection Agency (EPA) violated the Fourth Amendment by contracting with a private company to take aerial photographs of a chemical plant from public navigable airspace with standard aerial camera equipment.

2. Whether the procurement of aerial photographs of chemical plants by EPA exceeds its statutory authority.

TABLE OF CONTENTS

	Page
Opinions below	1
Jurisdiction	1
Statement	2
Summary of argument	6
Argument:	
I. Using standard, generally available photographic equipment to take aerial photographs of an outdoor manufacturing plant from navigable airspace does not violate the Fourth Amendment	10
A. The Fourth Amendment does not generally prohibit government officials from observing areas exposed to their view from a place where they have a right to be	11
1. There is no constitutional bar to viewing the "curtilage" from a vantage point to which the public has access	11
2. The fact that the purpose of a police observation is to discover evidence does not automatically make the police conduct a "search" within the meaning of the Fourth Amendment	15
B. Observation and ordinary photography from the air do not violate the Fourth Amendment	17
1. There is no legitimate expectation that one can conduct outdoor activity free from the possibility of aerial observation	18
2. There is no reasonable expectation that an outdoor facility will not be photographed from the air	21

Argument—Continued: Page

3. The fact that good quality aerial photographs are capable of revealing additional detail when enlarged and magnified does not give rise to a Fourth Amendment violation 26

4. Society does not recognize a reasonable expectation of privacy in outdoor activity strong enough to outweigh the government interest in using aerial photography 33

5. The existence of a trade secret in an outdoor area does not convert photography of that area into a Fourth Amendment violation 37

II. The use of aerial photography does not exceed the scope of EPA's statutory authority 45

Conclusion 50

TABLE OF AUTHORITIES

Cases:

Air Pollution Variance Board v. *Western Alfalfa Corp.*, 416 U.S. 861 ..... 12, 47
Berger v. *New York*, 388 U.S. 41 ..... 22-23, 46
Boyd v. *United States*, 116 U.S. 616 13
Camara v. *Municipal Court*, 387 U.S. 523 35
Chrysler Corp. v. *Brown*, 441 U.S. 281 ..... 41, 49
Delaware v. *Prouse*, 440 U.S. 648 35
Donovan v. *Dewey*, 452 U.S. 594 13
Dunaway v. *New York*, 442 U.S. 200 35
E.I. duPont deNemours & Co. v. *Christopher*, 431 F.2d 1012, cert. denied, 400 U.S. 1024 ..... 42, 43
Fullbright v. *United States*, 392 F.2d 432, cert. denied, 393 U.S. 830 ..... 15, 26
Hester v. *United States*, 265 U.S. 57 ..... 11, 14-15
Hoffa v. *United States*, 385 U.S. 293 44
Hunsucker v. *Phinney*, 497 F.2d 29, cert. denied, 420 U.S. 927 28

Cases—Continued: Page

Hurst v. *Hughes Tool Co.*, 634 F.2d 895 43
INS v. *Lopez-Mendoza*, No. 83-491 (July 5, 1984) .. 28
Kansas v. *Missouri*, 322 U.S. 213 22
Katz v. *United States*, 389 U.S. 347 .....4, 12, 17, 18, 34, 45
Kewanee Oil Co. v. *Bicron Corp.*, 416 U.S. 470 ..... 42, 44
Lopez v. *United States*, 373 U.S. 427 .....8, 25, 30
Marshall v. *Barlow's, Inc.*, 436 U.S. 307 ..... 12, 49
Maryland v. *Macon*, No. 84-778 (June 17, 1985) 12, 18
Michigan v. *Summers*, 452 U.S. 692 35
National Organization for the Reform of Marijuana Laws, Inc. v. *Mullen*, 608 F. Supp. 945 20
Nebraska v. *Wyoming*, 325 U.S. 589 22
Oliver v. *United States*, No. 82-15 (Apr. 17, 1984) ..*passim*
On Lee v. *United States*, 343 U.S. 747 25
People v. *Ciraola*, 161 Cal. App. 3d 1081, 208 Cal. Rptr. 93, cert. granted, No. 84-1513 (June 3, 1985) 20, 21
People v. *Lashmett*, 71 Ill. App. 3d 429, 389 N.E.2d 888, cert. denied, 444 U.S. 1081 20
People v. *Sneed*, 32 Cal. App. 3d 535, 108 Cal. Rptr. 146 20
Pieper v. *United States*, 604 F.2d 1131 28
Ruckelshaus v. *Monsanto Corp.*, No. 83-196 (June 26, 1984) 41, 43
Smith v. *Maryland*, 442 U.S. 735 17
State v. *Knight*, 63 Hawaii 90, 621 P.2d 370 20
Texas v. *Brown*, 460 U.S. 730 .....6, 12, 14
United States v. *Allen*, 675 F.2d 1373, cert. denied, 454 U.S. 833 .....20, 25-26
United States v. *Bassford*, 601 F. Supp. 1324 ..... 20, 21
United States v. *Caceres*, 440 U.S. 741 25
United States v. *Chadwick*, 433 U.S. 1 30
United States v. *Crews*, 445 U.S. 463 25
United States v. *DeBacker*, 493 F. Supp. 1078 20
United States v. *Dubrofsky*, 581 F.2d 208 26
United States v. *Espinoza*, 641 F.2d 153 26
United States v. *Hensel*, 509 F. Supp. 1376, aff'd, 699 F.2d 18, cert. denied, 461 U.S. 958 26
United States v. *Jacobsen*, No. 82-1167 (Apr. 2, 1984) 16

Cases—Continued: Page

United States v. *Karo*, No. 83-850 (July 3, 1984) .. 15, 16, 29, 30
United States v. *Kim*, 415 F. Supp. 1252 26
United States v. *Knotts*, 460 U.S. 276 .....8, 15, 17, 24, 30
United States v. *Lace*, 669 F.2d 46, cert. denied, 459 U.S. 854 26
United States v. *Lee*, 274 U.S. 559 .....8, 14, 25
United States v. *Leon*, No. 82-1771 (July 5, 1984) .. 28
United States v. *Long*, 674 F.2d 848 13
United States v. *Marbury*, 732 F.2d 390 20
United States v. *Martinez-Fuerte*, 428 U.S. 543..... 35
United States v. *Minton*, 488 F.2d 37, cert. denied, 416 U.S. 936 26
United States v. *Mullinex*, 508 F. Supp. 512 20
United States v. *Oliver*, 657 F.2d 85, rev'd, 686 F.2d 356, aff'd, *Oliver* v. *United States*, No. 82-15 (Apr. 17, 1984) 4
United States v. *Place*, 462 U.S. 696 16
United States v. *Santana*, 427 U.S. 38 14
United States v. *Swart*, 679 F.2d 698 13
United States v. *Taborda*, 635 F.2d 131 26
United States v. *Thomas*, 613 F.2d 787 26
United States v. *Tull*, No. 84-1766 (4th Cir. July 30, 1985) 23
United States v. *White*, 401 U.S. 745 25
United States v. *Wolfe*, 375 F. Supp. 949 13
Walter v. *United States*, 447 U.S. 649 30
Wearly v. *FTC*, 616 F.2d 662, cert. denied, 449 U.S. 822 41
Williams v. *State*, 157 Ga. App. 476, cert. denied, 454 U.S. 823 20
Worksite Inspection of Quality Products, Inc., In re, 592 F.2d 611 28

Constitution, statutes and regulation:

U.S. Const.:
Amend. IV .....*passim*
Amend. V 3, 4, 38
Air Commerce Act of 1926, ch. 344, § 10, 44 Stat. 574 19

Constitution, statutes and regulation—Continued: Page

Civil Aeronautics Act of 1938, ch. 601, § 3, 52 Stat. 980 19
Clean Air Act, 42 U.S.C. 7401 *et seq.* 2
42 U.S.C. 7413 46
42 U.S.C. 7413(a)(1) 48
42 U.S.C. 7413(a)(2) 48
42 U.S.C. 7413(a)(3) 48
42 U.S.C. 7414 (§ 114) 4, 47, 48
42 U.S.C. 7414(c) (§ 114(c)) 42, 49
Federal Aviation Administration Act of 1958, Pub. L. No. 85-726, § 104, 72 Stat. 740 19
Federal Insecticide, Fungicide, and Rodenticide Act, 7 U.S.C. 136 *et seq.*:
7 U.S.C. 136(a) 41
7 U.S.C. 136g 48
Freedom of Information Act, 5 U.S.C. 552(b)(4) .. 41, 49
Omnibus Crime Control and Safe Streets Act, 18 U.S.C. 2510 *et seq.* 46
15 U.S.C. 1270 48
18 U.S.C. 796 23
18 U.S.C. 1905 ..... 41, 49
18 U.S.C. 3107 46
18 U.S.C. 3109 46
28 U.S.C. 533 46
29 U.S.C. 657 48
42 U.S.C. 2278(b) 23
49 U.S.C. App. 1304 19
Mich. Comp. Laws Ann. § 752.772 (West 1985) 39
Uniform Trade Secrets Act, 14 U.L.A. 541 (1980) *et seq.*:
§ 1(2)(i), 14 U.L.A. 541 39
§§ 1-3, 14 U.L.A. 541-548 39
§ 2(b), 14 U.L.A. 544 39
§ 3, 14 U.L.A. 546 39
Commissioners' Comment, 14 U.L.A. 544 39
14 C.F.R. 91.79 19
40 C.F.R.:
Section 2.119(b) 38, 49
Sections 2.201 *et seq.* 50

Miscellaneous: Page

4 W. Blackstone, *Commentaries on the Laws of England* (Univ. of Chicago Press ed. 1979) 14
FAA, U.S. Dep't of Transportation, *No. AMS-420, Census of U.S. Civil Aircraft* (Dec. 31, 1983) 19
Fish Stories and Empty Offices, Time, Apr. 11, 1983, at 18 33
Highway Design Division, Texas Highway Department, *The Use of Maps Compiled by Photogrammatic Methods* (1966) 22-23
W. MacConnell & M. Cobb, Mass. Agricultural Experiment Station, *Bull. No. 622, Remote Sensing 20 Years of Change in MIDDLESEX COUNTY, Massachusetts, 1951-1971* (1974) 22
N.Y. Times, Apr. 1, 1983 42
4 Restatement of Torts (1939) 39, 40, 44
Reynolds, *Oblique Aerial Photography for Comprehensive Urban Planning*, Plan. Advisory Service Rep., May 1981, at 1 ..... 22, 33
Senate Comm. on Public Works, 93d Cong., 2d Sess., *A Legislative History of the Clean Air Act Amendments of 1970* (Comm. Print 1974) 48
Wick, *Aerial Photography of Real Property and Its Admissibility into Evidence*, 1 Northrop U.S.J. 113 (1979) 22, 23

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OPINIONS BELOW

The opinion of the court of appeals (Pet. App. A1-A14) is reported at 749 F.2d 307. The opinion of the district court (Pet. App. B1-B45) is reported at 536 F. Supp. 1355.

JURISDICTION

The judgment of the court of appeals was entered on November 9, 1984. The petition for a writ of certiorari was filed on February 7, 1985, and was granted on June 10, 1985. The jurisdiction of this Court is invoked under 28 U.S.C. 1254(1).

STATEMENT

1. Petitioner owns and operates a large chemical manufacturing facility in Midland, Michigan, which occupies approximately 2,000 acres in an area that is characterized by light to medium development. Petitioner's plant is located near an airport, and commercial aircraft frequently pass over and near the property. At the Midland location, petitioner owns and operates two power plants known as the South Side Power Plant and the West Side Power Plant. Pet. App. A9, B2.

In late 1977 and early 1978, enforcement officials of the Environmental Protection Agency (EPA) were gathering information concerning emissions from these power plants with the intention of bringing an enforcement action under the Clean Air Act, 42 U.S.C. 7401 *et seq.* EPA officials made an on-site inspection of the power plants in September 1977, but petitioner refused to accede to a subsequent request for a second inspection. Pet. App. A2. Thereafter, EPA enforcement officials decided to obtain aerial photographs of petitioner's Midland power plants in order to attempt to visualize the emissions from the stacks, to see the layout of the facilities, and to look at the effects of emissions on surrounding vegetation (J.A. A30). They contacted EPA's Environmental Monitoring and Surveillance Laboratory (EMSL) in Las Vegas, Nevada, and ordered the photographs. EMSL, in turn, contracted with Abrams Aerial Survey Corporation (Abrams), a local aerial photography business, to take photographs of the Dow plant. Pet. App. A2.

On February 7, 1978, an Abrams employee flew over petitioner's facility and took photographs. These

photographs were taken when the airplane was flying at altitudes of 12,000, 3,000 and 1,200 feet. The camera used was a Wild RC-10 aerial mapping camera with a six-inch lens and a focal length of 150 millimeters. The photographs taken at 1,200 feet show the plant at a scale of 1 inch to 200 feet. Abrams sent the undeveloped film to EMSL by courier service. There, EPA technicians developed the film and made several prints and enlargements of the power plants. The most detailed of the enlargements was a 2x enlargement of one of the photographs taken at the lowest altitude, resulting in a scale of 100 feet to the inch. See J.A. A42. The film and enlargements were then sent to EPA's Region V enforcement office in Chicago, Illinois. Pet. App. A3.

2. On March 15, 1978, petitioner brought an action for injunctive and declaratory relief against the United States and EPA. It alleged that aerial photography of its Midland plant violated its Fourth Amendment rights and deprived it of trade secret property interests in violation of the Fifth Amendment. Petitioner sought to obtain the photographs and to enjoin EPA's future use of aerial photography of the Midland plant. The court entered a temporary restraining order enjoining EPA from disseminating, releasing, copying, or duplicating the photographs or releasing information derived therefrom. Subsequently, the court entered a preliminary injunction, and the negatives and prints made by EPA were deposited, under seal, in the district court.[1]

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[1] Attorneys for the parties maintained access to the sealed exhibits. Petitioner's counsel took some of the film and had two frames (Nos. 8505 and 9506) enlarged 10x and 20x, resulting in a scale of 1 inch = 10 feet. These enlargements prepared by petitioner are contained in the Sealed Joint Appendix, photographs 4 and 5.

On April 19, 1982, the district court granted petitioner's motion for partial summary judgment and ruled that the aerial photography violated petitioner's Fourth Amendment rights.[2] First, the court ruled that because EPA admittedly was engaged in a "quest for evidence" (Pet. App. B6), the warrantless aerial photography was an unlawful administrative search. *Id.* at B5-B17. In the alternative, the district court analyzed the case under *Katz* v. *United States*, 389 U.S. 347 (1967), to determine whether petitioner had a reasonable expectation of privacy upon which EPA had infringed. It found that because petitioner had designed its plant so that some outdoor portions of the facility were not visible to a person standing on the ground at the plant boundary, it had an expectation of privacy in these outdoor facilities. The court also found that the aerial photography was a form of "visually enhanced surveillance" subject to special restriction because "EPA could later analyze [the photographs] under enlarged and magnified conditions" (Pet. App. B27). See *id.* at B17-B32. Finally, the district court ruled that the "open fields" doctrine did not apply when a property owner's expectation of privacy was objectively reasonable. In this regard, it relied (Pet. App. B32-B38) on the panel decision in *United States* v. *Oliver*, 657 F.2d 85 (1981), which was subsequently rejected both by the en banc court of appeals, 686 F.2d 356 (6th Cir. 1982), and by this Court, *Oliver* v. *United States*, No. 82-15 (Apr. 17, 1984).

The district court also ruled that Section 114 of the Clean Air Act, 42 U.S.C. 7414, which grants EPA

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[2] Petitioner's claims under the Fifth Amendment were later dismissed without prejudice by stipulation of the parties. C.A. App. 447-448.

inspectors the "right of entry to, upon, or through any premises" in certain circumstances, impliedly excluded EPA from using other techniques, such as aerial surveillance or photography, as an investigative tool. The court ruled that Congress intended that "only land-based inspections be utilized" (Pet. App. B44). Hence, it held that the overflights exceeded EPA's statutory authority. *Id.* at B39-B44. Accordingly, the court entered a permanent injunction against use of the photographs and against any future aerial surveillance and photography of petitioner's facility (*id.* at B45).

3. The court of appeals reversed (Pet. App. A1-A14). Looking to whether petitioner had a reasonable expectation of privacy in the areas in question, the court concluded that no reasonable expectation of privacy was invaded in photographing from the air the "outdoor spaces of a chemical plant" (*id.* at A13). The court reasoned that petitioner had exhibited no actual expectation of privacy from aerial observation of its large industrial plant (*id.* at A7-A8). Even if it had such an expectation, moreover, the court explained that society would not deem it to be reasonable (*id.* at A9):

> When the entity observed is a multi-building complex, and the area observed is the outside of these buildings and the spaces in between the buildings, and when the complex is near an airport and within the pattern of planes landing and taking off, it is difficult to see how a reasonable person would have privacy expectations in the outside of the buildings and the spaces between the buildings.

The court distinguished the open-air facilities involved here from petitioner's offices and enclosed fa-

cilities, where the Court recognized the existence of "strong expectations of privacy" (*id.* at A11).

The court of appeals also reversed the district court's ruling that the flights were unlawful because EPA was not authorized by statute to use aerial photography as an investigative technique. It ruled that Congress's delegation under the Clean Air Act of general investigative authority to EPA was sufficient statutory authority to conduct aerial observation that satisfied the Fourth Amendment. Pet. App. A13-A14.

SUMMARY OF ARGUMENT

I.

A. It is a truism of Fourth Amendment law that a government official is not "precluded from observing as an officer what would be entirely visible to him as a private citizen." *Texas* v. *Brown*, 460 U.S. 730, 740 (1983) (plurality opinion). Several decisions of this Court make clear that a prohibition on entry into a particular area is not equivalent to a prohibition on viewing that area from some other place where the officer may be without violating the party's property or privacy rights. Therefore, whether petitioner's outdoor facility is termed an "open field" or "curtilage" or something else, there is no constitutional bar to government agents' viewing it from a vantage point to which the public has access. Moreover, there is no constitutional requirement that the government have any patricular quantum of suspicion in so viewing private property, even if it is looking for something in particular and therefore in that sense conducting a "search." If a government attempt to obtain information does not infringe a legitimate expectation of privacy, it plainly is not an

"unreasonable" search, and there is no need to establish a basis for suspicion in order to satisfy the Fourth Amendment. In such circumstances, the fact that the government deliberately observes a person's visible property does not mean that it has conducted a "search" within the meaning of the Fourth Amendment.

B. The photographs involved here were taken from a plane flying in navigable airspace, above the minimum altitude, and thus in a region that has been designated by Congress as the equivalent of a public aerial highway. There is no legal or physical barrier to prevent anyone flying in navigable airspace from looking down into petitioner's outdoor facility, or indeed the curtilage of a home, while flying in one of the more than 260,000 aircraft registered in the United States. Thus, there is no legitimate expectation that outdoor activity will not be observed from the air. To the extent that this possibility of aerial observation constitutes a loss of privacy, it is lost to the public at large. No legitimate privacy interest would be served by imposing upon the government a special limitation on aerial observation; in Fourth Amendment terms, such observation by the government does not intrude into a legitimate subjective expectation of privacy.

The same principles apply when a photograph is taken from an airplane flying overhead. The photographs here were taken by a private contractor with standard, commercially available camera equipment. Any member of the public could have taken, or contracted for, such pictures. Moreover, government agencies regularly and routinely engage in aerial photography for mapping and other noninvestigative purposes. Thus, petitioner could have no legitimate expectation that its plant would not be photographed

from the air. In the absence of an intrusion into such a legitimate expectation of privacy, there is no constitutional prohibition on the use of technology to enhance human senses. See, *e.g.*, *United States* v. *Knotts*, 460 U.S. 276, 282 (1983) (beeper); *Lopez* v. *United States*, 373 U.S. 427, 439 (1963) (sound recording); *United States* v. *Lee*, 274 U.S. 559, 563 (1927) (searchlight, binoculars).

Petitioner contends that the level of detail potentially capable of being revealed by enlargement and magnification of the photographs taken for EPA establishes a Fourth Amendment violation, but this issue is not genuinely presented in this case. The enlargements of which petitioner complains were made by petitioner itself—of a portion of the plant and at a level of detail unnecessary to EPA's investigation. But the Fourth Amendment inquiry must focus on any privacy intrusion actually committed by the government, not on the potential intrusion that theoretically could result if the government were to take further steps. The fact that the government could obtain certain information by technologically enhancing the photographs it has taken should not be controlling if the government does not take such action. In any event, petitioner can have no legitimate expectation of privacy in details of its plant that can be revealed by ordinary enlargement and magnification of the photographs. These techniques are available to the public, and the Fourth Amendment does not prohibit the government from using them as well. Moreover, petitioner offers no basis for determining when a particular level of detail has become constitutionally offensive other than the subjective desires of the complaining party.

Even if there were a subjective expectation of privacy in an outdoor facility, it would not be one that society recognizes as reasonable. Outdoor areas ordinarily "do not provide the setting for those intimate activities that the [Fourth] Amendment is intended to shelter from government interference or surveillance." *Oliver* v. *United States*, No. 82-15 (Apr. 17, 1984), slip op. 7. Whatever minimal privacy interest one could imagine as being infringed by the possibility of aerial observation of outdoor activity cannot outweigh the important public interests served by the use of that technique to assist government regulation and law enforcement. This is particularly so when the area in question is an industrial facility, rather than the curtilage of a home.

Even if, as petitioner contends, the configuration of pipes or other details of its outdoor plant may constitute a "trade secret," that fact would have no bearing on the Fourth Amendment question at issue here. Trade secret laws are designed to protect against unfair competition by preventing the unauthorized *disclosure or use* of a trade secret. These laws do not purport to establish any privacy interest that would be infringed by observation, and they provide no guidance for the constitutional inquiry. For example, even if aerial photographs were regarded as an improper means of obtaining a trade secret for purposes of unfair competition law, as disclosure of confidential information by a former employee would be, that would not mean that the method violates the Fourth Amendment. Moreover, the government has no interest in building a chemical plant to compete with petitioner or otherwise using the trade secret; therefore, its mere possession of particular information would not even violate the trade secret laws and ought to cause petitioner no concern. Indeed, nu-

merous statutes contemplate that companies will turn over their trade secrets to the government in the course of normal business.

II.

It is clear that the overflight here was not invalid for lack of statutory authority. When Congress invests a government agency with law enforcement and investigatory authority, it is naturally and properly assumed that the agency is entitled to use any methods of investigation that could lawfully be employed by private investigators, even if not specifically enumerated in the statute. Nothing in the Clean Air Act gives any reason to doubt the correctness of this assumption. Plainly, the expansion of EPA's powers to authorize it to enter and inspect private premises in conducting its inquiries carries no negative implication prohibiting other, less intrusive forms of investigation.

ARGUMENT

I. USING STANDARD, GENERALLY AVAILABLE PHOTOGRAPHIC EQUIPMENT TO TAKE AERIAL PHOTOGRAPHS OF AN OUTDOOR MANUFACTURING PLANT FROM NAVIGABLE AIRSPACE DOES NOT VIOLATE THE FOURTH AMENDMENT

Petitioner contends that the EPA violated the Fourth Amendment when it engaged a private concern to take aerial photographs of its outdoor chemical plant. Petitioner appears to advance several alternative, albeit related, contentions. First, because it has taken steps to exclude the public from entry onto the plant grounds, petitioner asserts that the plant is not an "open field" and hence that it is protected from observation by agents of the government in the absence of probable cause and a warrant (Br. 19-24). In any event, petitioner contends that the

aerial observation that took place here violated the Fourth Amendment. Petitioner appears to contend that it is unlawful to view its facility from the air because it has taken extensive measures to prevent observation from the ground (see *id.* at 7-9, 16-17, 21), and it particularly objects to the use of aerial photography, arguing that the Fourth Amendment prohibits anything other than unaided "naked eye" viewing (*id.* at 24-30). Finally, petitioner contends that the capacity of the photographs to reveal detail through enlargement and magnification demonstrates a Fourth Amendment violation (*id.* at 31-41).

The court of appeals correctly rejected these contentions. Even if one accepts petitioner's argument that the plant is not like an "open field" insofar as the public is denied access, this does not mean that the plant may not be viewed by the public (or the government) from a vantage point to which it undisputedly does have access. Put another way, the fact that an area is protected from physical entry does not mean that the law provides an additional barrier to observation from outside the property where none exists in fact. And the Fourth Amendment does not prevent the use of a camera to record an otherwise lawful visual observation.

A. The Fourth Amendment Does Not Generally Prohibit Government Officials From Observing Areas Exposed To Their View From A Place Where They Have A Right To Be

1. *There Is No Constitutional Bar To Viewing The "Curtilage" From A Vantage Point To Which The Public Has Access*

In *Oliver* v. *United States*, No. 82-15 (Apr. 17, 1984), the Court reaffirmed the "open fields" doctrine, which was first recognized in *Hester* v. *United States*, 265 U.S. 57 (1924). The Court held that the Fourth

Amendment is not violated by a government entry onto open fields even though the entry is an uninvited trespassory intrusion onto private property. The Court first noted (*Oliver*, slip op. 4-5) that open fields beyond the curtilage of a dwelling are not properly classified among the "persons, houses, papers, and effects" to which the protections of the Fourth Amendment apply. It then explained that the same result would also be independently reached under the "expectation of privacy" analysis of *Katz* v. *United States*, 389 U.S. 347 (1967). First, "open fields do not provide the setting for those intimate activities that the [Fourth] Amendment is intended to shelter from government interference or surveillance" (*Oliver*, slip op. 7). In addition, despite his ownership interest and manifestations of that interest such as fences or no trespassing signs, a landowner has no reasonable expectation of privacy in his open fields because "as a practical matter these lands usually are accessible to the public and the police in ways that a home, office or commercial structure would not be" (*ibid.*). The "open fields" doctrine thus is an illustration of the more general principle that "there is no reason [why a policeman or other government official] should be precluded from observing as an officer what would be entirely visible to him as a private citizen." *Texas* v. *Brown*, 460 U.S. 730, 740 (1983) (plurality opinion). See also *Maryland* v. *Macon*, No. 84-778 (June 17, 1985), slip op. 5; *Marshall* v. *Barlow's, Inc.*, 436 U.S. 307, 315 (1978); *Air Pollution Variance Board* v. *Western Alfalfa Corp.*, 416 U.S. 861, 865 (1974).

In *Oliver*, the Court distinguished "open fields" from the common law concept of "curtilage," described as "the land immediately surrounding and associated with the home" (*id.* at 8). While the Court expressly did not consider the scope of Fourth

Amendment protection of the curtilage as opposed to the home (*id.* at 9 n.11), it suggested that areas considered part of the curtilage would have greater constitutional protection than open fields. Petitioner seizes upon this distinction to support its challenge to EPA's aerial viewing of its outdoor plant. Petitioner contends that the outdoor portions of its plant are not "open fields," but rather are a "business curtilage" (Br. 20) that cannot constitutionally be viewed from the air. This contention misperceives the nature of the issue in *Oliver* and of the Fourth Amendment protection of privacy in the curtilage.[3]

It was never disputed in *Oliver* that the police were entitled to look into the landowner's property and see whatever they could see while standing on public

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[3] Petitioner's manufacturing plant does not fit within the ordinary understanding of the term "curtilage," which is particularly associated with the home. In *Oliver*, the Court described the curtilage as "the area to which extends the intimate activity associated with the 'sanctity of a man's home and the privacies of life.'" Slip op. 8 (quoting *Boyd* v. *United States*, 116 U.S. 616, 630 (1886)). The intimate activities associated with the home do not take place in the outdoor areas of a manufacturing plant. More generally, "the expectation of privacy that the owner of commercial property enjoys in such property differs significantly from the sanctity accorded an individual's home." *Donovan* v. *Dewey*, 452 U.S. 594, 598-599 (1981). Hence, petitioner's plant cannot be considered as coming within the ambit of the common law concept of "curtilage." See, *e.g.*, *United States* v. *Long*, 674 F.2d 848, 853 (11th Cir. 1982); *United States* v. *Wolfe*, 375 F. Supp. 949, 957-959 (E.D. Pa. 1974); but cf. *United States* v. *Swart*, 679 F.2d 698 (7th Cir. 1982) (stating that yard of auto repair shop may be "curtilage" and hence protected from unconsented entry). For present purposes, however, we will assume that the grounds of petitioner's plant are entitled to a degree of Fourth Amendment protection somewhat akin to, although not necessarily identical to, that appropriate for the curtilage. See pages 36-37, *infra*.

property. The focus of the litigation in *Oliver* was over the right of police to *enter* the property; regardless of the outcome of the case there would have been no bar to observation of the private property from outside, whether from the ground or the air (see slip op. 7 n.9). The same assumptions that underlay the Court's deliberations in *Oliver* apply to the curtilage. The fact that the Fourth Amendment may protect against entry in the absence of probable cause or a warrant does not mean that the Constitution erects a barrier to visual observation from areas open to the public. See, *e.g.*, *Texas* v. *Brown*, *supra* (looking into an automobile); *United States* v. *Santana*, 427 U.S. 38 (1976) (observing individual in doorway of her home); *United States* v. *Lee*, 274 U.S. 559 (1927) (looking onto a boat deck). This conclusion is particularly apt in the case of the common law concept of curtilage, which originated in the course of defining what intrusions into the area of the home would constitute a burglary (see 4 W. Blackstone, *Commentaries on the Laws of England* ch. 16, at 225 (Univ. of Chicago Press ed. 1979)); the notion of curtilage focuses on physical entry, not freedom from observation. Thus, petitioner's assertion here that its plant is not an "open field," but rather something akin to curtilage that is entitled to Fourth Amendment protection, does not address the question presented of the lawfulness of the *observation* of the plant from public navigable airspace.

This Court has never suggested that the Fourth Amendment prohibits government officials from observing the curtilage; indeed, a long line of decisions plainly demonstrates that the Court has aways assumed that such observation is lawful. In *Hester*, for example, the police officers who entered the open field were able to observe the defendant in possession of contraband just outside the doorstep of his house.

265 U.S. at 58. Once the Court determined that the trespass did not violate the Fourth Amendment, it did not doubt that the officers lawfully could observe the defendant's activities from their vantage point in the open field, although those activities almost surely took place within the curtilage. Similarly, in *United States* v. *Karo*, No. 83-850 (July 3, 1984), and *United States* v. *Knotts*, 460 U.S. 276 (1983), the Court considered the Fourth Amendment implications of police monitoring of a "beeper" transmitting signals from in or near a privately owned building. The Court found manifestly unobjectionable the use of a beeper to obtain information available from visual surveillance, even if that surveillance extended up to the door of a residence (see *Karo*, slip op. 7-9; 460 U.S. at 281-282, 285). The only Fourth Amendment problem arose from the use of the beeper "to obtain information that it could not have obtained by observation from outside the curtilage of the house" (*Karo*, slip op. 9). In sum, the fact that government officials may lack authority in a given situation to enter the curtilage of a residence does not prevent them from standing outside the curtilage and looking inside to observe what is exposed to their view from that vantage point. See also *Fullbright* v. *United States*, 392 F.2d 432, 434-435 (10th Cir.), cert. denied, 393 U.S. 830 (1968).

2. The Fact That The Purpose Of A Police Observation Is To Discover Evidence Does Not Automatically Make The Police Conduct A "Search" Within the Meaning Of The Fourth Amendment

Contrary to petitioner's contention (Br. 27-30), the fact that government officials are looking for something, and hence can be colloquially described as conducting a "search," does not mean that their activity is violative of the Fourth Amendment if done

in the absence of probable cause and a warrant. In Fourth Amendment terms, "[a] 'search' occurs 'when an expectation of privacy that society is prepared to consider reasonable is infringed.'" *United States* v. *Karo*, slip op. 6 (quoting *United States* v. *Jacobsen*, No. 82-1167 (Apr. 2, 1984), slip op. 3). This is because in those situations where there is no intrusion into a legitimate expectation of privacy, the investigative activity is presumptively reasonable even in the absence of any suspicion at all, and hence the Fourth Amendment's protection against "unreasonable" searches does not even come into play.

Obviously, when police scour the streets looking for a suspect or wait by the side of the highway looking for a particular car, they are conducting a "search," but their activity raises no Fourth Amendment question. Similarly, the Court has held that police may enter and inspect an open field (*Oliver*), have a dog sniff luggage (*United States* v. *Place*, 462 U.S. 696, 706-707 (1983)), and field test for cocaine (*United States* v. *Jacobsen*, *supra*) without any particularized suspicion of criminal activity. These measures do not implicate sufficiently weighty privacy interests to be deemed unreasonable in the absence of such suspicion (see *Oliver*, slip op. 5); hence, use of these measures does not invoke Fourth Amendment scrutiny of the justification for the search. For this reason, such measures are not "searches" within the meaning of the Fourth Amendment, although they plainly involve "searches" in the ordinary sense of looking for something. See *Oliver*, slip op. 11; *Place*, 462 U.S. at 707; *Jacobsen*, slip op. 10, 12. By the same token, the fact that government officials who peer into exposed curtilage may be "searching" for something does not mean that they are conducting a "search" within the meaning of the Fourth Amendment—*i.e.*, that their

activity is unreasonable in the absence of a particular degree of suspicion.[4]

B. Observation And Ordinary Photography From The Air Do Not Violate The Fourth Amendment

Petitioner's primary contention is that, even if ground level observation of activities and structures on the curtilage from a point outside the curtilage would be permitted, the use of airplanes, and particularly aerial photography, to observe its chemical plant is unconstitutional. Petitioner's assertion that these methods of observation invade its legitimate expectation of privacy must be assessed by reference to the two-part inquiry first set forth by Justice Harlan in his concurring opinion in *Katz* v. *United States*, 389 U.S. at 361 (1967), and subsequently embraced by the full Court. See, *e.g.*, *United States* v. *Knotts*, 460 U.S. at 280-281; *Smith* v. *Maryland*, 442 U.S. 735 (1979). Under this test, an individual has a legitimate expectation of privacy subject to constitutional protection in a particular area or activity if he has exhibited a subjective expectation of privacy and if that expectation is one that society is prepared to recognize as reasonable.

The first part of the test recognizes that there are situations in which even essentially private activities that ordinarily warrant Fourth Amendment protection nonetheless can be devoid of any legitimate expectation of privacy because an individual engages in those activities in a manner that is not calculated to shield them from the public. If these otherwise

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[4] Suppose that in this case EPA agents had observed and photographed petitioner's plant from the top of a nearby tall building or water tower. Plainly, there could be no tenable claim of a Fourth Amendment violation in such circumstances. For reasons explained in the next point, the same action from the public airspace is analytically indistinguishable.

private matters are exposed to the public, then they are equally exposed to government officials. Thus, an individual lacks a legitimate expectation of privacy in a private conversation that is loud enough to be overheard by passersby (*Katz*, 389 U.S. at 361 (Harlan, J., concurring)), in private papers that he leaves exposed on a park bench, or in reading material that he sells to the public (*Maryland* v. *Macon*, *supra*). The second part of the test recognizes that the mere fact that an individual has taken steps to protect certain activities from observation by the public does not automatically mean that they are protected by the Fourth Amendment. Some activities and areas are sufficiently removed from the intimate private activities whose protection is at the core of the Fourth Amendment that the government's interest in effectively conducting its business outweighs the limited privacy interest involved. For example, even if a landowner takes steps to exclude the public from his marijuana fields, the Fourth Amendment does not prevent police from entering to investigate the illegal enterprise (*Oliver*, slip op. 13).[5]

1. *There Is No Legitimate Expectation That One Can Conduct Outdoor Activity Free From The Possibility Of Aerial Observation*

In today's society, there can be no reasonable subjective expectation that outdoor activity will be free from overflights by aircraft and the possibility of observation from such aircraft. Since 1926, there has been a public right of travel in airspace above pre-

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[5] In this connection, we urge the Court to examine the photographs taken for EPA and contained in the Sealed Joint Appendix (Nos. 1, 2, and 3); the suggestion that they reveal the kind of private object or activity deserving of substantial Fourth Amendment protection seems to us to be entirely belied by the photographs.

scribed minimum altitudes of flight. See Air Commerce Act of 1926, ch. 344, § 10, 44 Stat. 574.[6] By regulation, the minimum altitude for fixed wing aircraft has been set at 1,000 feet in congested areas and 500 feet in uncongested areas. 14 C.F.R. 91.79.[7] In addition to commercial air carriers, this public highway through the air is used by more than 260,000 aircraft registered in the United States, which log more than 36 million flight hours per year. FAA, U.S. Dep't of Transportation, *No. AMS-420, Census of U.S. Civil Aircraft* 4, 46, 54 (Dec. 31, 1983). Airplanes and helicopters flying at relatively low altitudes are used routinely to perform such diverse functions as providing traffic reports, crop dusting, shooting film for news programs, sightseeing, and getting from one place to another. There is nothing to prevent the 718,000 active pilots (*id.* at 46) or their passengers on these planes from looking down and observing what they can see on the ground below from altitudes as low as 1,000 feet.[8]

Indeed, the litigation in *Oliver* was premised on the assumption by the parties and the Court that "the

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[6] This declaration of a public right of freedom of transit through navigable airspace was repeated in the Civil Aeronautics Act of 1938, ch. 601, § 3, 52 Stat. 980, and in the Federal Aviation Administration Act of 1958, Pub. L. No. 85-726, § 104, 72 Stat. 740. It is codified at 49 U.S.C. App. 1304.

[7] No minimum altitude is set for aircraft operating over open water or sparsely populated areas, but such aircraft must remain 500 feet above any person, vehicle, or structure. Helicopters may be operated at lower altitudes than those specified for fixed wing aircraft as long as they are operated without hazard to persons or property on the ground. 14 C.F.R. 91.79.

[8] More than 1 million flight hours per year are devoted to the purpose of "aerial observation." *Census of U.S. Civil Aircraft, supra,* at 54.

public and police lawfully may survey lands from the air." Slip op. 7 (footnote omitted). The Court relied on the fact that repudiation of the "open fields" doctrine would have little practical effect because law enforcement officials could resort to aerial surveillance (*id.* at 7 n.9). Even the dissenting opinion in the en banc court of appeals in *Oliver* shared this premise, although it disagreed with this Court's ultimate conclusion that an *entry* into open fields was permitted: "Oliver did not have a reasonable expectation of privacy from planes or helicopters flying overhead. Thus, the officers could have lawfully used airplanes or helicopters to observe the marijuana from the air." 686 F.2d at 372 (Keith, J., dissenting).[9]

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[9] In light of the established, pervasive use of the aerial highways, lower courts faced with the question have almost uniformly held that aerial observation does not violate the Fourth Amendment. See, *e.g.*, *United States* v. *Marbury*, 732 F.2d 390, 398 (5th Cir. 1984); *United States* v. *Allen*, 675 F.2d 1373, 1380-1381 (9th Cir. 1980), cert. denied, 454 U.S. 833 (1981); *United States* v. *Bassford*, 601 F. Supp. 1324, 1328-1332 (D. Me. 1985); *United States* v. *Mullinex*, 508 F. Supp. 512, 514-515 (E.D. Ky. 1980); *United States* v. *DeBacker*, 493 F. Supp. 1078, 1081 (W.D. Mich. 1980); *State* v. *Knight*, 63 Hawaii 90, 621 P.2d 370 (1980); *People* v. *Lashmett*, 71 Ill. App. 3d 429, 431, 389 N.E.2d 888, 890 (1979), cert. denied, 444 U.S. 1081 (1980); *Williams* v. *State*, 157 Ga. App. 476, cert. denied, 454 U.S. 823 (1981). The courts that have found constitutional violations in the context of aerial observation generally have done so in cases where the overflights went below navigable airspace,. See, *e.g.*, *National Organization for the Reform of Marijuana Laws, Inc.* v. *Mullen*, 608 F. Supp. 945 (C.D. Cal. 1985); *People* v. *Sneed*, 32 Cal. App. 3d 535, 542-543, 108 Cal. Rptr. 146, 150-151 (1973).

In *People* v. *Ciraolo*, 161 Cal. App. 3d 1081, 208 Cal. Rptr. 93 (1984), cert. granted, No. 84-1513 (June 3, 1985), the California Court of Appeals appears to have established a broad rule that aerial observation of the curtilage violates

Establishment of a rule making it a Fourth Amendment violation to look down into the curtilage from a passing airplane would lead to strange results. Government officials would be forced to avert their eyes from the ground during flight even as other members of the public looked down. Moreover, because aircraft may come upon structures suddenly and, in any event, it is difficult to distinguish between the curtilage and open fields, the practical effect of such a rule would be to prevent government officials from observing even open fields from the air—an action that everyone agrees is lawful. See *United States* v. *Bassford*, 601 F. Supp. 1324, 1331-1332 (D. Me. 1985). Indeed, petitioner itself at times appears to concede that aerial observation with the naked eye does not implicate the Fourth Amendment (see Br. 25, 37). In short, Congress's establishment of a public right to freedom of transit in navigable airspace necessarily constitutes a decision in favor of the social and economic advantages of relatively unrestrained aviation at the expense of the loss of some degree of privacy from airborne observation. That privacy has been lost to the public, and it cannot be recaptured by reading the Fourth Amendment to impose special limitations upon the viewing ability of government officials.

2. *There Is No Reasonable Expectation That An Outdoor Facility Will Not Be Photographed From The Air*

Petitioner correctly notes that aerial photography allows more to be seen than mere observation from the air by the unaided human eye. The creation of

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the Fourth Amendment in the absence of probable cause and a warrant. For the reasons discussed in this brief, we believe that *Ciraolo* is wrongly decided and should be reversed by this Court.

a permanent record may make it easier for the observer to comprehend fully what is exposed to his view. Moreover, it is usually possible to enlarge a photograph, thus exposing more detail than could be seen with the naked eye from the same vantage point.[10] It does not follow, however, that an individual has a legitimate expectation that his outdoor activity or facility will be free from the possibility of being photographed from a plane flying overhead.

As this Court's own decisions reflect (see *Nebraska* v. *Wyoming*, 325 U.S. 589, 668 (1945); *Kansas* v. *Missouri*, 322 U.S. 213, 220 (1944)), aerial photography has been practiced on a regular basis since the early days of aviation. See generally Wick, *Aerial Photography of Real Property and Its Admissibility into Evidence*, 1 Northrup U.L.J. 113 (1979). Aerial photography is frequently employed by both governments and private persons for a variety of useful purposes.[11] In contrast to wiretapping (see *Berger* v.

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[10] Petitioner also asserts (Br. 38) that a camera can see what a person cannot because looking through the floor of a plane is a superior vantage point to looking out the window. It may be true that a passenger's view from a commercial air carrier is not very good as compared to a floor-mounted camera. But a passenger in a smaller general aviation craft, which is the sort of aircraft that is likely to fly low enough that items on the ground may be visible, has a much greater range of vision and ordinarily would be able to have a downward view similar to that of a camera.

[11] Aerial photographs are used extensively for mapping purposes, and they have considerable utility in urban and regional planning (see, *e.g.*, Reynolds, *Oblique Aerial Photography for Comprehensive Urban Planning*, Plan. Advisory Service Rep., May 1981, at 1; W. MacConnell & M. Cobb, Mass. Agricultural Experiment Station, *Bull. No. 622, Remote Sensing 20 Years of Change in Middlesex County Massachusetts, 1951-1971* (1974)) and highway location and design (see Highway Design Division, Texas Highway De-

New York, 388 U.S. 41, 45-49 (1967)), there is no history of federal or state laws generally restricting aerial photography. Congress has acted to prohibit the use of such photography only in very limited circumstances (see 18 U.S.C. 796 (military installations); 42 U.S.C. 2278(b) (designated national security-related nuclear facilities)) and otherwise has allowed its widespread use. Indeed, the common use of this technique is evidenced in this case by the fact that the EPA did not need to go to great lengths to obtain the photographs. It simply hired a local contractor whose business was aerial photography.

The record in this case shows that the government routinely engages in aerial photography for diverse purposes having nothing at all to do with investigating criminal activity or discovering regulatory violations. See, *e.g.*, Affidavit of G. LaRoche, Nuclear Regulatory Commission (site evaluation and emergency response planning for nuclear power plants); Affidavit of J. Jarman, United States Forest Service (watershed, flood plain, and resource survey); Affidavit of R. McArdle, Department of Agriculture (wetlands and soil conservation). See also *United States* v. *Tull*, No. 84-1766 (4th Cir. July 30, 1985), slip op. 14 n.5. The same is true of state governments. Indeed, the record shows that petitioner's Midland plant was photographed from the air by the Michigan Department of Natural Resources pursuant to its regular regulatory functions (J.A. A54). Thus, petitioner's outdoor plant is exposed to observation and photography from the air, and such photography is known to be relatively common. In these circumstances, it cannot reasonably be asserted that peti-

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partment, *The Use of Maps Compiled by Photogrammatic Methods* (1966)). See generally Wick, *supra*, 1 Northrop U.L.J. at 116-117.

tioner had any genuine subjective expectation of privacy from aerial photography.

Notwithstanding the fact that it could not reasonably entertain a subjective expectation of privacy from aerial photography, petitioner argues (Br. 16, 25, 30, 31, 37-39) that the use of technology such as a camera to enhance the vision of the naked eye is so inherently intrusive that it must be deemed violative of the Fourth Amendment. This broad proposition is clearly without support in established Fourth Amendment jurisprudence. In *United States* v. *Knotts*, 460 U.S. at 282, the Court observed that "[n]othing in the Fourth Amendment prohibited the police from augmenting the sensory faculties bestowed upon them at birth with such enhancement as science and technology afforded them in this case" (a beeper). While this statement does not mean that there are no constitutional limits on the use of technological developments to aid the police, it reflects the Court's consistent recognition that the Fourth Amendment does not restrict government investigators to observation by the unaided human senses.[12] A long line of authority has recognized the use of relatively common devices to enhance vision, hearing, smell, and memory.

The Court has not specifically confronted the question whether photography of an area that a government official may lawfully view with the naked eye

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[12] If, for example, the government possessed a sophisticated X-ray device that enabled it to see through the walls of a house, there seems little doubt that the use of such a device to discover objects or activities located inside a dwelling would be subject to Fourth Amendment regulation. That is because people can reasonably expect privacy from such surveillance. The same plainly cannot be said with respect to the use of commonly available photographic equipment to record outdoor activities or conditions.

violates the Fourth Amendment, but its decisions on related questions leave little doubt that it does not. In *United States* v. *Lee*, *supra*, the Court ruled that there was no constitutional bar to the use of a searchlight to illuminate a dark area into which officers could not otherwise see. The Court analogized the use of the searchlight to the use of binoculars, which it regarded as so plainly constitutional that it did not warrant discussion. 274 U.S. at 563. See also *On Lee* v. *United States*, 343 U.S. 747, 754 (1952). The mere fact that human vision is enhanced in a way that allows an observer to see more detail does not create a constitutional violation. By the same token, the mere fact that the camera creates a permanent record of a view that is only transitory to the naked eye does not prohibit its use. In *Lopez* v. *United States*, 373 U.S. 427, 439 (1963), the Court recognized that an undercover police officer may surreptitiously record a private conversation; indeed, he may even carry a transmitter to broadcast the conversation to other police officers. See *United States* v. *Caceres*, 440 U.S. 741, 750-751 (1979); *United States* v. *White*, 401 U.S. 745 (1971). As long as he is listening to the conversation lawfully, there is no bar to recording it for permanent use. Against this background, there is little basis for the contention that the police or other government officials are constitutionally prohibited from photographing what they can lawfully observe with the naked eye (or through eyeglasses). See also *United States* v. *Crews*, 445 U.S. 463, 474-475 (1980) (plurality opinion).

The courts of appeals have recognized that government officials are entitled to take photographs or make other permanent records of things that they lawfully observe. In *United States* v. *Allen*, 675 F.2d 1373, 1379-1381 (9th Cir. 1980), cert. denied, 454 U.S. 833

(1981), the court upheld the admissibility of photographs taken from a helicopter with a telephoto lens. See also *United States* v. *Hensel*, 509 F. Supp. 1376, 1379 (D. Me. 1981), aff'd, 699 F.2d 18, 41 (1st Cir.), cert. denied, 461 U.S. 958 (1983) (aerial photographs); *United States* v. *Espinoza*, 641 F.2d 153, 167 (4th Cir. 1981) (photographs on ground); *United States* v. *Thomas*, 613 F.2d 787, 793 (10th Cir. 1980) (photocopies). And the courts have repeatedly upheld the use of vision enlarging aids such as binoculars. See, *e.g.*, *United States* v. *Hensel*, 699 F.2d at 41; *United States* v. *Dubrofsky*, 581 F.2d 208, 211 (9th Cir. 1978); *United States* v. *Minton*, 488 F.2d 37, 38 (4th Cir. 1973), cert. denied, 416 U.S. 936 (1974); *Fullbright* v. *United States*, *supra*.[13]

3. *The Fact That Good Quality Aerial Photographs Are Capable Of Revealing Additional Detail When Enlarged And Magnified Does Not Give Rise To A Fourth Amendment Violation*

Perhaps recognizing the difficulty in contending that it has a legitimate expectation of privacy from

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[13] Petitioner relies heavily (see Br. 16, 25, 27-29, 37) on *United States* v. *Taborda*, 635 F.2d 131 (2d Cir. 1980), and *United States* v. *Kim*, 415 F. Supp. 1252 (D. Hawaii 1976), which found the use of telescopes to violate the Fourth Amendment. These cases, however, are plainly inapposite here because they turned on the fact that the telescopes were used to see inside the home, not to observe activity occurring in the open air. *Taborda*, 635 F.2d at 138-139; *Kim*, 415 F. Supp. at 1257-1258. Whether or not these cases are correctly decided on their facts, it is apparent that the fundamental Fourth Amendment concern with the privacy of the home because of the intimate activities that occur there justifies greater protection against the use of technological visual aids than is appropriate in the case of outdoor activities, even if they occur on the curtilage. See *United States* v. *Hensel*, 699 F.2d at 41; *United States* v. *Lace*, 669 F.2d 46, 49-51 (2d Cir.), cert. denied, 459 U.S. 854 (1982). See generally pages 33-37, *infra*.

aerial photography generally, petitioner devotes part of its brief (at 35-41) to what appears to be an extremely case-specific contention, namely, that the particular photographs taken here—because of the degree of detail of petitioner's chemical plant capable of being revealed by enlargements of those photographs viewed under magnification—were so intrusive that they should be held to violate the Fourth Amendment. This position is somewhat unfocused, but it appears to suggest an unacceptable regime in which the dispositive factor would be the degree to which an individual subjectively desires to be free from aerial observation—a standard that would make it all but impossible for government officials to have known in advance whether their conduct comports with the Fourth Amendment. Before turning to this contention, however, it is important to emphasize that this case does not genuinely present the case-specific question addressed by petitioner; the intrusion that petitioner asserts would be unconstitutional is a hypothetical one that was not actually established by any actions taken by the government in this case.

a. The Fourth Amendment issue in this case comes to the Court in a most peculiar context. There has been no attempt by the government to introduce any evidence gleaned from the overflight against petitioner in any judicial or other proceeding, and thus there is no specific evidence that is sought to be suppressed. Rather, it is petitioner that commenced this litigation, seeking to enjoin the government from *any* use of the information obtained from the aerial photography. Petitioner's arguments accordingly have been addressed to the entire array of photographs taken and what they theoretically are capable of revealing through the further application of enlargement and magnification technology. The particular level of detail about which petitioner expresses principal con-

cern in this Court (see Br. 12, 37-39; Sealed Joint Appendix, Photographs 4 & 5) is found in enlargements created not by the government, but by petitioner itself; these enlargements have never been in the government's possession except in a theoretical sense.[14]

There is no reason to suppose that the government would ever have made enlargements like those made by petitioner, for they do not relate to any matter in which the government has expressed an interest. The government was investigating the two power plants at petitioner's Midland facility, and EPA officials did make modest 2x enlargements of some pictures of the power plants. Petitioner does not assert the existence of any private information in these pictures of the power plants. Rather, it focuses its attention on the

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[14] In our view, the district court erred in exercising jurisdiction over petitioner's suit, presumably on the basis of its inherent equitable powers, rather than waiting for a concrete controversy where the government actually tried to make use of some of the information gathered during the overflight. See *Pieper* v. *United States*, 604 F.2d 1131 (8th Cir. 1979); *In re Worksite Inspection of Quality Products, Inc.*, 592 F.2d 611, 613-617 (1st Cir. 1979); *Hunsucker* v. *Phinney*, 497 F.2d 29 (5th Cir. 1974), cert. denied, 420 U.S. 927 (1975). Moreover, even if there existed a sufficient prospect of future warrantless aerial photography of petitioner's facility to justify possible declaratory or prospective injunctive relief, it is most doubtful that the injunction barring any use of the photographs already taken could be proper. It is by no means clear that the exclusionary rule would apply to EPA regulatory proceedings (cf. *INS* v. *Lopez-Mendoza*, No. 83-491 (July 5, 1984)) or that, if it did, it would bar consideration of evidence obtained in the mistaken but "good faith" belief that the Fourth Amendment was not being violated (cf. *United States* v. *Leon*, No. 82-1771 (July 5, 1984)). The propriety of EPA's use of the photographs in such a manner would be best determined in connection with any proceeding in which such use was sought to be made.

details of the nearby chemical manufacturing facilities that were also captured on the film. Petitioner has enlarged these photographs 20x (see Sealed Joint Appendix, Photograph 5) and claims that the enlargements that it itself produced so intrude into its private concerns that the aerial photography must be held to violate the Fourth Amendment. In sum, the government has taken photographs that do not appear to implicate any privacy concerns of petitioner; petitioner in turn has manipulated those photographs to expose information that it desires to keep private and now complains about the attendant privacy intrusion.[15]

Petitioner's complaint therefore is about the *potential* privacy intrusion created by the aerial photography here. The Court has recently rejected essentially the same contention, however, making clear that the Fourth Amendment does not prohibit government activity simply because of the information that could be revealed if further activity were undertaken. The fact that it may violate the Fourth Amendment to monitor a beeper when it is located in a private residence (see *United States* v. *Karo*, *supra*) does not

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[15] The difference between the magnified enlargements upon which petitioner focuses its attention and the actual photographs possessed by the government is dramatic. Petitioner apparently regards enlargements that show items as small as ½ inch in diameter to be unconstitutionally intrusive (see Pet. Br. 12 n.*, 14). The original contact prints made by the government in this case of the photographs taken at the lowest altitude were at a scale of 1 inch = 200 feet (Pet. Br. 12). Thus, on these prints a half-inch item would measure 1/4800 of an inch. The district court found that these prints could be enlarged to a scale of 1 inch = 20 feet without significant loss of resolution (Pet. App. B3; see Pet. Br. 12; J.A. A59). Even at the scale of these potential enlargements, the items in question would measure only 1/480 of an inch on the photograph.

mean that it is unlawful to install the beeper in a container of chemicals that might be taken into a private residence. As long as the beeper is not actually used to reveal information about the whereabouts of an item in a private place that could not be learned through observation from a place where the police have a right to be, its use for other purposes not implicating protected privacy rights is lawful (see *United States* v. *Knotts*, 460 U.S. at 285). It is clear that "potential, as opposed to actual, invasions of privacy [do not] constitute searches for purposes of the Fourth Amendment. * * * It is the exploitation of technological advances that implicates the Fourth Amendment, not their mere existence." *Karo*, slip op. 6.[16]

Thus, even on the assumption that petitioner is correct that it would violate its Fourth Amendment rights for the government to observe the details of petitioner's chemical plant to the extent revealed in

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[16] Under petitioner's suggestion, as technology improved, there would paradoxically be a reduction in the degree of technology available to government officials. For example, under *Lopez* v. *United States*, *supra*, the police are permitted to record a conversation between a suspect and an informant. Suppose it were possible through the use of advanced technology to amplify that recording and suppress interference to the extent that a conversation taking place in the adjoining room could be made audible. Petitioner's contention would lead to the perverse result that the possibility of such enhancement would invalidate the act of recording itself and require that *Lopez* be overruled. Indeed, petitioner's argument, if carried to its logical limit, could have ramifications even outside the context of technological enhancement. It would suggest that an otherwise lawful seizure of an item could violate the Fourth Amendment because it creates the potential for an unlawful search or viewing of the item. Compare *Walter* v. *United States*, 447 U.S. 649 (1980); *United States* v. *Chadwick*, 433 U.S. 1, 13-14 n.8 (1977).

the enlargements made by petitioner, the aerial photography here would not be unconstitutional. Petitioner's remedy in such a case would be to challenge the government's use of any unlawful enlargements that it might make; there is no basis whatsoever for the relief that petitioner obtained in this case—an injunction against government use of any of the photographs, including the unenlarged photos of the exterior of the power plants that apparently are not even alleged to intrude into any privacy interest.

b. In any event, it would not violate the Fourth Amendment even if the government had sought to enlarge and use the particular photographs of the chemical plant of which petitioner complains. Petitioner advances no discernible basis for determining when aerial photography is too intrusive to meet constitutional standards. Petitioner concedes that the Michigan Department of Natural Resources has taken aerial photographs of its plant from an altitude of 12,000 feet (one of the altitudes at which the EPA photographs in this case were taken) (see Br. 38; J.A. A45-A47), but it dismisses these photographs with the statement that the degree of detail that such photographs show "does not cause Dow concern" (Pet. Br. 39).[17] The lawfulness of a particular method of investigation cannot turn solely on whether it causes the subject concern; the Fourth Amendment requires a more objective standard. Petitioner's focus on its own subjective desire is particularly inapt here,

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[17] In light of this concession, it is unclear how petitioner could have sought, and obtained from the district court, an injunction prohibiting EPA from using any of the photographs taken by Abrams Aerial Survey. Some of these photographs were taken at 12,000 feet (see J.A. A39, A45) and thus approximate the photographs taken by the Michigan state agency.

where the gist of its complaint is directed not at the actual observations or photographs made, but at the detail they potentially can reveal when enlarged and magnified. Presumably then, under petitioner's theory, if enlargement and magnification technology were to improve, the heretofore unobjectionable photographs taken by the State of Michigan might suddenly turn into Fourth Amendment violations.[18]

In our view, the question whether an individual or corporation has a legitimate expectation of privacy from a particular form of aerial observation depends largely on the extent to which that form of observation is available to the public. If the technology to take a particular type of aerial photograph is commonly available and society has taken no steps to restrict or outlaw such photography, then an individual can have no reasonable expectation that his outdoor activity will not be photographed in this fashion by members of the public. If so, the Fourth Amendment does not prevent the government from taking the same photographs.

Unless all aerial photography is to be banned, there is no basis for finding a Fourth Amendment violation in the pictures taken on behalf of EPA. The photographs were taken with ordinary, commercially available, camera equipment.[19] No technology

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[18] Even with the technology commonly available today, the altitude at which a plane flies is only one factor that determines the detail potentially exposed to the photographer. That level of detail will also depend on the type of camera and the degree of enlargement. For example, the photographs taken by the state officials, if enlarged 10x, would be on the same scale as the EPA pictures taken from the lowest altitude here—pictures that the district court enjoined the government from using.

[19] Indeed, the record indicates that photographs showing greater detail than those taken here could have been taken

was used that is secret or within the special competence of the government; on the contrary, the government hired a private contractor who could have been hired by any member of the public, and the contractor used his standard equipment.[20] When the aircraft flew over the plant, it was well within the navigable airspace where Congress has guaranteed its right to fly. Any details of the outdoor portions of the plant capable of being revealed by this photography (and we reiterate that the government did not take the steps hypothesized by petitioner that could reveal such details) cannot reasonably have been expected to remain private. If such photography is available to members of the public, such as news magazines interested in petitioner's plant (see *Fish Stories and Empty Offices*, Time, Apr. 11, 1983, at 18), the Fourth Amendment surely does not prohibit the government from using such photography in the exercise of its regulatory responsibilities.

4. *Society Does Not Recognize A Reasonable Expectation Of Privacy In Outdoor Activity Strong Enough To Outweigh The Government Interest In Using Aerial Photography*

As detailed above, application of the first prong of the *Katz* test shows that no Fourth Amendment violation occurred here because petitioner could not have a reasonable subjective expectation of privacy from

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from a helicopter with a good quality 35 millimeter camera and a standard 70 millimeter lens (J.A. A48-A50).

[20] An urban planner discussing the utility of aerial photography reports that his local planning department purchased from Abrams Aerial Survey Corporation vertical aerial photographs of the entire West Bloomfield Township area in Michigan. The county planning commission made available photographs of the populated area at an original scale of 1 inch = 100 feet, *i.e.*, twice as detailed as the most detailed pictures taken for EPA in this case. See Reynolds, *supra*, Plan. Advisory Service Rep. at 4-5.

common, commercially available, and generally lawful photography. The second prong of the *Katz* test, focusing on the nature of the privacy interest at stake, also supports the decision of the court of appeals. The only areas observable from the air, no matter how extensively photographs are enlarged or magnified, are ones that are open to the sky. Such outdoor areas ordinarily "do not provide the setting for those intimate activities that the [Fourth] Amendment is intended to shelter from government interference or surveillance." *Oliver*, slip op. 7.[21]

To be sure, it is possible that a person may sometimes engage in an essentially private activity in an outdoor setting. The question is whether it is reasonable from society's viewpoint for the Fourth Amendment to protect from the fairly unlikely possibility of aerial observation those occasional episodes of intimate activity that occur outdoors (which are, of course, undertaken with knowledge that they may be observable from the air). This inquiry into the reasonableness of aerial photography must be judged "by balancing its intrusion on the individual's Fourth Amendment interests against its promotion of legiti-

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[21] Despite petitioner's efforts to equate the two cases (see Br. 16, 25, 27), the difference in the nature of the activity sought to be protected makes this case fundamentally unlike *Katz*. In *Katz*, the question was the government's right to overhear "private communication" (389 U.S. at 352), the sort of activity that lies at the core of the privacy interests valued by our society. Therefore, the Court found that an individual who uses a phone booth "is surely entitled to assume that the words he utters into the mouthpiece will not be broadcast to the world" (*ibid.*). A fundamental aspect of privacy would be lost if people had no ability to keep their private conversations from being overheard at the whim of the government. No comparable loss of privacy occurs if persons are subject to the possibility of aerial observation when they are outdoors.

mate governmental interests." *Delaware* v. *Prouse*, 440 U.S. 648, 654 (1979) (footnote omitted). See also *United States* v. *Martinez-Fuerte*, 428 U.S. 543, 555 (1976); *Camara* v. *Municipal Court*, 387 U.S. 523, 536-537 (1967).

We submit that it is not reasonable to use the Fourth Amendment in the present context to erect a visual barrier where none exists in fact. There is a strong public interest in allowing the government to use efficient and effective means in discharging its law enforcement, regulatory, and other responsibilities. The extremely limited privacy interest in protecting from the possibility of aerial observation the ordinary gamut of nonprivate outdoor activities such as the emission of gases from a factory smokestack, and even the occasional outdoor activity for which an individual might genuinely desire privacy, cannot outweigh this government interest, particularly when private citizens are in any event able to observe such activity from the air without restriction. The "balancing of competing interests" that is the "key principle" in assessing reasonableness (see *Michigan* v. *Summers*, 452 U.S. 692, 700 n.12 (1981), quoting *Dunaway* v. *New York*, 442 U.S. 200, 219 (1979)) tips overwhelmingly in favor of permitting aerial observation and photography.

The lack of constitutional protection of outdoor activity from aerial observation does not mean that persons are unprotected by the Fourth Amendment when they are outdoors. Because of its association with the home, this is particularly true when outdoor activity takes place within the curtilage. There it is entitled to the basic privacy protection of freedom from entry and interference without just cause.[22]

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[22] This protection against entry serves the dual purpose of protecting property and activities located on the curtilage from

For many of the activities that might conceivably be conducted outdoors, yet considered private, this protection against entry fully satisfies any privacy interest that an individual might have. A prayer meeting, a moment of solitude, or a desire to protect fauna from human intervention (see *Oliver*, slip op. 9 (Marshall, J., dissenting)) is significantly disturbed by an uninvited entry, yet is hardly intruded upon, if at all, by mere observation from an overflying aircraft. Even the sort of outdoor activity that might be considered intruded upon by observation, such as a lovers' tryst, is obviously much more severely intruded upon by an actual entry. Thus, the decision below does not "wreak[ ] havoc on protection for the home and its attendant curtilage" (Pet. Br. 34). On the contrary, given the sorts of activities that are likely to take place in the curtilage, a failure to prohibit aerial photography permits only a fairly minimal intrusion into the privacy of those intimate activities that are at the core of the Fourth Amendment. See *Oliver*, slip op. 7.

For the reasons discussed above, we submit that aerial photography of the curtilage does not infringe an expectation of privacy that society would regard as reasonable. This case, however, does not even involve the curtilage, and therefore it is even clearer here that there is no basis for finding that the Fourth Amendment prohibits the overflight that occurred. The common law concept of curtilage is particularly associated with the home, and its special Fourth Amendment protection derives from the fact that the intimate activities associated with the home may extend in some fashion to the curtilage. See note 3, *supra*. That is plainly not the case with peti-

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interference and providing a buffer that enhances the privacy and security of the home itself.

tioner's outdoor manufacturing plant. The types of private activities that might occur in the curtilage, or even in open fields (see *Oliver*, slip op. 9 (Marshall, J. dissenting)), surely would never take place within the confines of petitioner's manufacturing plant. Indeed, if we put to one side for the moment the question of trade secrets, which we discuss next, it is difficult to conceive of any business-related activities likely to take place within the outdoor surroundings of a manufacturing plant that would fall within the scope of private activities that the Fourth Amendment is intended to shelter. Accordingly, there can be no justification for interpreting the Fourth Amendment to protect the plant from aerial observation at the expense of the considerable government interest in effective regulation.[23]

5. *The Existence Of A Trade Secret In An Outdoor Area Does Not Convert Photography Of That Area Into A Fourth Amendment Violation*

The overriding theme of petitioner's contention in this Court is that the photographs of the outdoor portions of its plant capture "trade secrets" that are contained in the precise configuration of pipes and equipment that fill the spaces between the enclosed structures. See Pet. Br. 22-24, 35-39, 45-47. Petitioner assets that its interest in preventing dissemination of these trade secrets confers upon it a consti-

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[23] Petitioner complains (Br. 6, 32-33; see also Pet. App. G1-G2) that it is economically infeasible for it to take measures to insulate its plant from aerial observation. It hardly follows from that premise, however, that the Constitution must pick up the slack and serve as a roof for the plant. A more reasonable deduction would be that the practical impossibility of protecting petitioner's outdoor activity from observation merely evidences the fact that the activity cannot reasonably be regarded as "private" and therefore is not the sort of activity at which the constitutional protection is directed.

tutional right to be free from aerial photography by the government. While petitioner's premise strikes us as doubtful, we will assume for present purposes that the configuration of pipes does constitute a trade secret that is capable of being revealed by the photographs taken by Abrams Aerial Survey.[24] The fact is, however, that the presence or absence of a trade secret is completely irrelevant to the general Fourth Amendment issue at hand.[25]

Both the common law and modern statutory law have recognized that society has an interest in giving individual entrepreneurs proprietary rights in the fruits of their labor and inventiveness. It is thought preferable for businessmen to develop products through innovation and hard work, rather than by stealing the work product of a competitor. Accordingly, some degree of protection of trade secrets has long been a component of tort or unfair competition

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[24] The existence of a trade secret in this case was in part at least an issue of fact that was disputed by the parties. For this reason, the district court did not dispose of petitioner's Fifth Amendment claim on summary judgment. See Pet. App. B38. The Fifth Amendment claim was later dismissed without prejudice, and therefore this factual dispute has not been resolved. In any event, we think it highly doubtful as a matter of law, that it is possible to have a trade secret that is so easily observable from the air. See note 29, *infra*.

[25] Moreover, we note that the significance of petitioner's trade secret claims to this particular litigation seems to be greatly overstated. EPA policy, reflected in published regulations (40 C.F.R. 2.119(b)), is to protect, not release, trade secret information. Rather than requesting that EPA preserve the confidentiality of this information, however, petitioner chose to institute this lawsuit. Furthermore, the relief sought and obtained by petitioner goes well beyond what is relevant to protecting its trade secret. It seems apparent, therefore, that petitioner wishes to prevent EPA overflights quite apart from any question of trade secrets.

law. Section 757(a) of the Restatement of Torts (1939) states that "[o]ne who discloses or uses another's trade secret, without a privilege to do so, is liable to the other if he discovered the secret by improper means." As petitioner notes, similar provisions are contained in Michigan law and in the Uniform Trade Secrets Act. See Br. 47-48; Pet. App. C1-C2, D1-D6, E1-E3.

What petitioner fails to appreciate is that these rules are directed solely at preventing unfair competition; they do not purport to establish any privacy interest and provide no guidance for the Fourth Amendment inquiry. The Restatement establishes tort liability for one who "discloses or uses" a trade secret. The Michigan statute makes it a misdemeanor for one to steal a trade secret "with an intent to appropriate a trade secret to his own use or to the use of another." Mich. Comp. Laws Ann. § 752.772 (West 1985); Pet. App. E3. The Uniform Trade Secrets Act §§ 1-3, 14 U.L.A. 541-548 (1980), establishes a right to injunctive relief or damages from misappropriation of a trade secret. "Misappropriation" is defined in terms of "disclosure and use" of a trade secret acquired through improper means. Pet. App. D1-D3.[26] Clearly, the essence of the law's pro-

[26] Section 1(2)(i) of the Act, 14 U.L.A. 541 (1980), arguably suggests that acquisition of a trade secret can alone constitute actionable misappropriation. The full context of the statute, however, makes clear that the statute contemplates either disclosure or use of the trade secret as the basis for a suit under the statute. The basic injunctive relief available is an injunction against future use and disclosure (see Section 2(b) and Commissioners' Comment, 14 U.L.A. 544 (1980)), and it is difficult to imagine what damages could be available (Section 3) without disclosure or use by a competitor. To the extent mere acquisition implicates the statute, it is acquisition with the intent to appropriate a trade secret, which can be guarded

tection of trade secrets is the prohibition on unfair destruction of the competitive advantage of the owner of the secret *by disclosing or using it.* See 4 Restatement of Torts § 757 comment at 17 (1939). This prohibition is consistent with the goal of the rules to prevent unfair competition.

Just as clearly, this case involves none of the considerations that underlie the protection for trade secrets. Putting aside the fact that the government never sought to acquire the trade secret because it was interested in the power plants, not extreme magnifications of the chemical plants also captured on the film, it cannot seriously be contended that there was any danger that the government would *use* the trade secret. The EPA is not in the business of building chemical plants; its business is to administer the anti-pollution laws and to regulate emissions from manufacturing facilities. Nor is it in the business of supplying information about chemical manufacturing plants to a company's competitors. Thus, even if EPA inadvertently came into possession of a trade secret in the course of its aerial photograpy of petitioner's plant, it would not have violated the trade secret statutes, which focus on disclosure or use, and its action should not have given petitioner cause for concern that its secret had been compromised.[27]

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against by a suit to enjoin disclosure or use of the secret—relief far narrower than that sought and obtained from the district court by petitioner.

[27] Petitioner's argument in this regard highlights again the inappropriateness of considering its privacy claim in the abstract, rather than in the specific context of a government attempt to use the information it has obtained. There appears to be no claim that petitioner has any trade secret in the power plants that were the target of the government's aerial observation. Thus, to the extent petitioner's Fourth Amendment claim

More generally, there is no reason why the Fourth Amendment ought to be implicated simply because the government comes into possession of trade secrets. That occurs all the time in the course of the normal functioning of government. Statutes require companies to furnish the government with information that may be classed as trade secrets (see, *e.g.*, Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), 7 U.S.C. 136(a)), and the government may subpoena such information for legitimate purposes (see, *e.g.*, *Wearly* v. *FTC*, 616 F.2d 662 (3d Cir.), cert. denied, 449 U.S. 822 (1980)). Legal disputes arise over the government's power to *disseminate* such information, which implicates the companies' interest in preserving their trade secrets from competitors, but it has not heretofore been suggested that it is unlawful for the government itself to take possession of this information if it keeps it confidential. See, *e.g.*, *Ruckelshaus* v. *Monsanto Corp.*, No. 83-196 (June 26, 1984), slip op. 20 n.13; *Wearly* v. *FTC*, *supra*; see also *Chrysler Corp.* v. *Brown*, 441 U.S. 281, 306 (1979). Indeed, the practice of furnishing trade secrets to the government is so pervasive that special statutes have been enacted to protect against the possibility that they will be unjustifiably disclosed. See, *e.g.*, 18 U.S.C. 1905 (Trade Secrets Act); 5 U.S.C.

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rests on the presence of a trade secret, petitioner would appear to have no objection to the overflight if the camera had been more discriminating and the photographer had been able to limit his photographs to the target power plants. But that situation ought not to be treated differently from the one actually presented here, where the government allegedly has inadvertently obtained the capability to examine photographs of a trade secret but has no intention of actually doing so, much less making use of the trade secret. Under petitioner's theory, a marijuana farmer could protect his fields from aerial observation by placing some trade secret in the midst of the marijuana. Cf. *Oliver*, slip op. 11 n.13.

552(b)(4) (Freedom of Information Act). The Clean Air Act itself has a provision protecting trade secrets (42 U.S.C. 7414(c)), which indicates that Congress contemplated that EPA would gain access to trade secrets in the course of its regulatory activities.[28]

Petitioner cites dictum in a decision of this Court (*Kewanee Oil Co.* v. *Bicron Corp.*, 416 U.S. 470, 476 (1974)), and one court of appeals decision, *E.I. du-Pont deNemours & Co.* v. *Christopher*, 431 F.2d 1012 (5th Cir. 1970), cert. denied, 400 U.S. 1024 (1971), for the proposition that aerial observation is an "improper means" of obtaining a trade secret. See Pet. Br. 47-48. Even if this premise is correct,[29] it does

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[28] There is always the theoretical possibility, of course, that a trade secret in the possession of the government will be disclosed inadvertently. Thus, it is understandable that petitioner would prefer that the government not obtain possession of any trade secret, even if it has no intention to use it or disclose it. Because of this danger of inadvertent disclosure, it might be said that the government's mere acquisition of a trade secret constitutes some invasion of petitioner's rights (although it would appear to be more its property right in the trade secret than any right protected by the Fourth Amendment). Even if that is true, however, it cannot seriously be doubted that the strong government interests implicated here would outweigh such a small, speculative effect on petitioner's rights. Unfortunately, in today's society, manufacturing facilities frequently produce toxic chemicals that pollute the environment. For example, EPA tests have indicated that waste water discharged by petitioner's Midland facility into an adjacent river contains more than 40 toxic chemicals. See N.Y. Times, Apr. 1, 1983, at A1, col. 1. The strong public interest in enforcing the statutes that regulate this type of pollution outweighs the possibility that information obtained from aerial photography might also contain a trade secret that might inadvertently be disclosed.

[29] The *Christopher* decision is actually somewhat narrower than described by petitioner. In that case aerial photographs were taken of a plant under construction, and it was not con-

not follow that such observation is violative of the Fourth Amendment. First, it is not true that an action that constitutes a tort thereby necessarily or even ordinarily constitutes a Fourth Amendment violation. See *Oliver*, slip op. 11-12. Moreover, because the policies involved in the two situations are so different, there is no reason to suppose that the standards for deciding what is an unfair means of obtaining a trade secret ought to have any bearing on the reasonableness of an action under the Fourth Amendment.

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tested that they were taken for the purpose of appropriating a process that DuPont sought to keep secret. The court, in finding that DuPont had an action under Texas law for misappropriation of a trade secret, relied heavily on the fact that the photographer had used the "trick" (431 F.2d at 1016) of flying over the plant before it could be completed. The court explained that "after construction the finished plant would have protected much of the process from view, [but] during the period of construction the trade secret was exposed to view from the air" (*ibid.*). See also *Hurst* v. *Hughes Tool Co.*, 634 F.2d 895, 898 (5th Cir. 1981). Thus, *Christopher* does not really address the question whether it is improper to appropriate a trade secret by flying over a completed facility that is so constructed that the alleged "secret" is visible to the aerial observer or photographer. Specifically, *Christopher* does not resolve whether, in light of the fact that "the extent of the property right [in a trade secret] is defined by the extent to which the owner of the secret protects his interests from disclosure to others" (*Ruckelshaus* v. *Monsanto Co.*, slip op. 13), a company can have a trade secret in an outdoor plant that is readily subject to aerial observation. Thus, in this case, it is doubtful both as a legal and factual (see note 24, *supra*) matter whether petitioner has a trade secret in the configuration of its outdoor facility. For purposes of the issues presented here, however, we will assume arguendo that petitioner does have such a trade secret. As discussed in text, whether or not private competitors may use aerial photography to appropriate information claimed to be a trade secret has no bearing on whether the Fourth Amendment prohibits the government from using aerial photography for other purposes.

The purpose of the trade secret laws is to prevent unfair competition and promote individual inventiveness. Therefore, the law would quite logically seek to prohibit the acquisition of trade secrets through certain means that do not infringe at all upon the privacy interests protected by the Fourth Amendment.

The Restatement notes in its comments that means for acquiring trade secrets may be improper "even though they do not cause any other harm than that to the interest in the trade secret." 4 Restatement of Torts § 757 comment at 10-11 (1939). For example, the Restatement gives as illustrations of "improper means" of acquiring a trade secret the use of a trespass or inducing employees to breach a duty of confidence to their employer. *Ibid.* Deeming such methods improper under the trade secret laws reasonably furthers the policies of those laws; indeed, the misappropriation before the Court in *Kewanee Oil*, *supra*, was of this sort—a breach of confidentiality by former employees. But it is plain that such activities do not violate the Fourth Amendment. It does not necessarily violate the Constitution for police to obtain evidence by means of a trespass (*Oliver*), and it surely is constitutional for police to obtain information about a criminal enterprise from a former employee turned informant or an undercover operative. See *e.g.*, *Hoffa* v. *United States*, 385 U.S. 293 (1966). By the same token, even if unfair competition law would hold it improper to use aerial observation or photography for the purpose of acquiring a trade secret, that does not suggest that it is unreasonable for the government to use aerial observation to investigate criminal activity or in the exercise of its other regulatory powers.

In sum, neither the existence of a trade secret in an outdoor plant nor any other activity likely to be

carried on in such an area implicates the sort of interest that the Fourth Amendment was designed to protect. Thus, both prongs of the *Katz* test suggest that petitioner has no legitimate expectation of privacy from aerial photography with commercially available equipment, and hence that the Fourth Amendment does not prohibit such photography. The technique is freely available to the public, and therefore petitioner can have no subjective expectation that its outdoor facility will not be photographed from the air. And the privacy interests implicated are sufficiently slight that society would not regard it as reasonable to protect them at the expense of constricting the government's ability to utilize an effective technique that materially assists in the exercise of important governmental functions.

II. THE USE OF AERIAL PHOTOGRAPHY DOES NOT EXCEED THE SCOPE OF EPA'S STATUTORY AUTHORITY

Petitioner also contends (Br. 41-49) that, regardless of this Court's resolution of the constitutional question, the overflight that took place here was unlawful because EPA's statutory grant of inspection authority does not authorize it to contract for aerial photography.[30] This contention is devoid of textual

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[30] We assume, for purposes of this discussion, that aerial photography does not violate the Fourth Amendment. If the overflight here were unconstitutional, we would not contend that the statute must be construed to authorize it, and, in any event, the issue would be insignificant because, regardless of Congress's intent, the overflight would be unlawful. For this reason, we regard as quite irrelevant petitioner's assertion (Br. 46) that the EPA cannot use "other constitutionally offensive scrutiny, such as intrusive aerial photography, which Congress did not specifically list as forbidden." We do not dispute that the EPA cannot use "constitutionally offensive scrutiny"; the issue is whether, as a matter of statutory au-

or other support, and the court of appeals was correct in rejecting it summarily (see Pet. App. A13-A14).

When Congress invests a government agency with law enforcement and investigatory authority, it has never been suggested that Congress must explicitly identify each and every lawful technique that might be used in the course of an investigation. Rather, it is naturally assumed that the agency is entitled to use those methods of investigation that could be undertaken by any member of the general public. Special authorization may be given to use methods that are not available to the public. For example, the Attorney General is given special, express authority to seize private property pursuant to warrant (18 U.S.C. 3107) and to engage in forcible entries in connection with executing a warrant (18 U.S.C. 3109). The enumeration of these specific powers does not implicitly exclude from the Attorney General's broad authority "to detect and prosecute crimes" (28 U.S.C. 533) the power to engage in more mundane investigatory activities, such as following a person or car on the streets or questioning witnesses to a crime.

By the same token, the statutory power conferred on EPA to enforce certain anti-pollution laws (see 42 U.S.C. 7413) must implicitly carry with it the power to use ordinary, publicly available techniques to gather relevant information. There can be little

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thority, the EPA may use constitutionally *permissible* aerial photography. Thus, as petitioner's own characterization reveals, the fact that the EPA cannot use wiretapping without explicit congressional authorization has no bearing on the issue here because that is an investigative technique that is not available to the public, but rather is subject to stringent constitutional and statutory limitations. See *Berger* v. *New York*, 388 U.S. 41 (1967); Omnibus Crime Control and Safe Streets Act, 18 U.S.C. 2510 *et seq.*

doubt that EPA officials can do research in the library, inspect public records of a company's building permits at a local government office, place air quality monitors on public property downwind from a pollution source, or stand on the public highway and observe (or photograph) a pollution source (see *Air Pollution Variance Board* v. *Western Alfalfa Corp.*, 416 U.S. 861, 864-865 (1974))—all without specific statutory authorization. By the same token, they ought to be able to use aerial photography to the same extent that that technique is lawfully available to the general public. Indeed, we are aware of no statute that expressly confers upon a government agency the general authority to use aerial photography for investigative or regulatory purposes, but, as noted above (at 22-23), this technique is frequently used by numerous agencies for diverse objectives, law enforcement and otherwise. Thus, there is no basis for petitioner's suggestion that aerial photography by EPA is not authorized simply because it is not specifically mentioned in the statute.

Congress has conferred upon the EPA special investigative powers to aid it in its enforcement mission. Under Section 114 of the Clean Air Act, 42 U.S.C. 7414, the EPA may prescribe recordkeeping requirements and the installation of monitoring equipment. More important, the statute gives appropriate EPA officials the right to enter the premises of any person who owns or operates an emission source in order to look at these records, sample emissions, and generally conduct an inspection. There is no suggestion in the statute, however, that the powers conferred by Section 114 are intended to be exclusive.[31]

[31] The enforcement provision of the statute is broadly worded to authorize the Administrator of EPA to act on the basis of "any information available to him," which seems to

Somewhat paradoxically, petitioner nonetheless claims (Br. 43-45) that it is this additional grant of authority that demonstrates that Congress has prohibited the EPA from engaging in aerial photography.

As with most administrative inspection statutes (see, *e.g.*, 7 U.S.C. 136g (FIFRA); 15 U.S.C. 1270 (hazardous substances); 29 U.S.C. 657 (OSHA)), Section 114 of the Clean Air Act prescribes certain procedures to be followed by agency officials in executing their authority to enter private premises, which include presenting their credentials. It is hard to understand petitioner's contention, however, that these requirements should be read to prohibit aerial photography. When agency officials seek access to private premises or to inspect business records, it is obvious that they should identify themselves since their right to enter depends on their status as agents of the government acting pursuant to specific statutory authority. A member of the public would not be entitled to enter the premises to inspect. But when agency officials use some method of investigation that is not an entry and that is available to a private investigator or any other member of the general public and hence does not require specific statutory authorization, there is no reason at all for the entry procedures to apply.

More generally, it is clear that 42 U.S.C. 7414 was enacted in 1970 with the intent of *expanding* the authority of government officials to investigate air pollution. See, *e.g.*, Senate Comm. on Public Works, 93d Cong., 2d Sess., *A Legislative History of the Clean Air Act Amendments of 1970* 829 (Comm. Print 1974) (remarks of Rep. Murphy). If peti-

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contemplate that he will receive information from sources other than those specified in Section 114. See 42 U.S.C. 7413(a)(1), (2) and (3).

tioner's argument were correct, this provision would prohibit EPA inspectors from standing on a public street and looking at the smoke coming out of petitioner's factory. But it would obviously be anomalous to convert this positive grant of authority into an implicit restriction on the EPA's ability to use nonentry investigative methods of the sort available to the general public, particularly when the authority expressly conferred to enter premises at ground level is undoubtedly more intrusive than observation from the public airspace or any other location off petitioner's property. In sum, there is no statutory impediment to EPA's use of aerial observation in aid of its regulatory functions.[32]

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[32] Petitioner also asserts (Br. 47) that allowing EPA to engage in aerial photography would be inconsistent with the Clean Air Act's provision protecting against disclosure of trade secrets. Section 114(c), 42 U.S.C. 7414(c). This contention is difficult to comprehend. A specific statutory provision protecting trade secrets hardly suggests a limitation on investigative techniques; on the contrary, it presupposes that in using its investigative powers the EPA will acquire information that may require protection. See *Marshall* v. *Barlow's, Inc.*, 436 U.S. 307, 339 n.10 (1978) (Stevens, J., dissenting).

It may be that petitioner is contending that the protections of Section 114(c) would not apply to aerial photography (because by its terms that subsection applies only to "information obtained under subsection (a)") and hence that the use of aerial photography is inconsistent with the Act's recognition of the need to protect trade secrets. This argument is flawed. Regardless of the applicability of the disclosure and associated trade secret protections of Section 114(c), such trade secrets (if they exist) would still be protected from disclosure under the Trade Secrets Act, 18 U.S.C. 1905, and the Freedom of Information Act, 5 U.S.C. 552(b)(4) (see *Chrysler Corp.* v. *Brown*, 441 U.S. at 318; 40 C.F.R. 2.119(b)). Indeed, the protection afforded under these statutes appears to be even broader than that under Section 114(c), which excludes "emissions data." The EPA has detailed regulations

CONCLUSION

The judgment of the court of appeals should be affirmed.

Respectfully submitted.

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addressing the need to protect confidential business matters (see 40 C.F.R. 2.201 *et seq.*), and it has specifically addressed the issue of overflights. In May 1978, EPA adopted a policy of promptly notifying companies of overflights in order to give them an opportunity at the outset to claim trade secret protection. See C.A. App. 160.

Finally, as discussed above (see pages 37-42, *supra*), trade secrets are not a genuine concern unless they are used or disclosed; the statutory protection for trade secrets surely does not suggest that EPA is prohibited from taking photographs for its own legitimate internal use. In short, the existence of trade secret protection is a complement to the EPA's ability to gather information through aerial observation, not a prohibition on that method.

* Acting Solicitor General Fried is disqualified in this case.

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